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PCT/IL 2005/000357  
17 MAY 2005

PA 1304493

# THE UNITED STATES OF AMERICA

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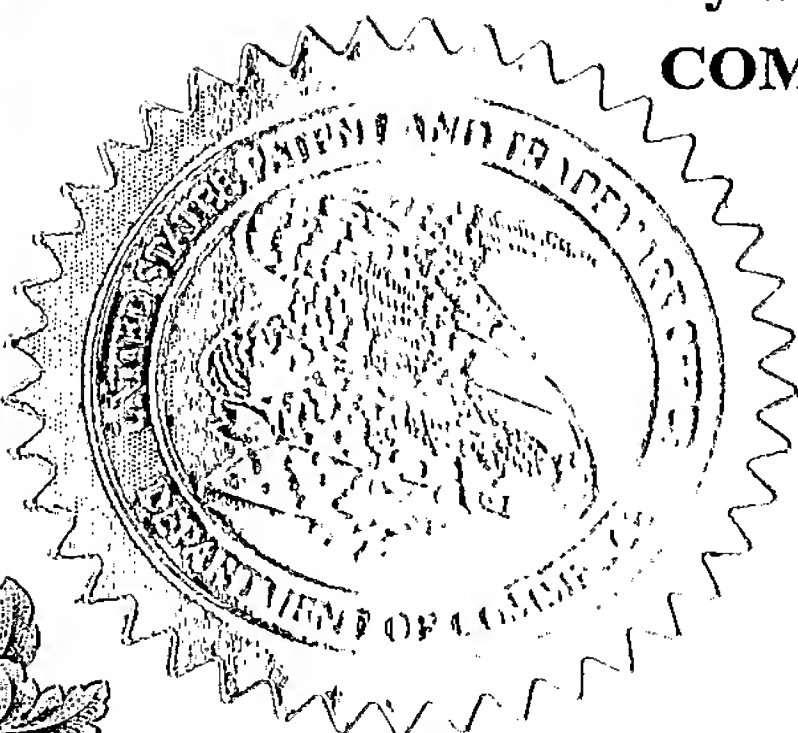
**April 11, 2005**

**THIS IS TO CERTIFY THAT ANNEXED HERETO IS A TRUE COPY FROM THE RECORDS OF THE UNITED STATES PATENT AND TRADEMARK OFFICE OF THOSE PAPERS OF THE BELOW IDENTIFIED PATENT APPLICATION THAT MET THE REQUIREMENTS TO BE GRANTED A FILING DATE UNDER 35 USC 111.**

**APPLICATION NUMBER: 60/557,976**

**FILING DATE: *March 30, 2004***

**By Authority of the  
COMMISSIONER OF PATENTS AND TRADEMARKS**



*Trudie Wallace*  
**TRUDIE WALLACE**  
**Certifying Officer**

13146 U.S. PTO

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PTO/SB/16 (8-00)

Approved for use through 10/31/2002. OMB 0651-0032

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**PROVISIONAL APPLICATION FOR PATENT COVER SHEET**

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53(c).

22264 U.S. PTO  
60/557976

033004

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TITLE OF THE INVENTION (280 characters max)					
ELECTRONIC PADLOCK					
Direct all correspondence to: CORRESPONDENCE ADDRESS					
<input type="checkbox"/> Customer Number		<input type="text"/>		<input type="text"/>	
OR		Type Customer Number here			
<input checked="" type="checkbox"/> Firm or Individual Name		ABELMAN, FRAYNE & SCHWAB Attorneys at Law			
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Country		U.S.A.	Telephone	(212) 949-9022	Fax (212) 949-9190
ENCLOSED APPLICATION PARTS (check all that apply)					
<input checked="" type="checkbox"/>	Specification (Including drawings)	Number of Pages	<input type="text"/>	<input type="checkbox"/>	CD(s), Number
<input type="checkbox"/>	Drawing(s)	Number of sheets	<input type="text"/>	<input type="checkbox"/>	Other (specify)
<input type="checkbox"/>	Application Data Sheet. See 37 CFR 1.76				
METHOD OF PAYMENT OF FILING FEES FOR THIS PROVISIONAL APPLICATION FOR PATENT (check one)					
<input checked="" type="checkbox"/>	Applicant claims small entity status. See 37 CFR 1.27.				FILING FEE AMOUNT (\$)
<input checked="" type="checkbox"/>	A check or money order is enclosed to cover the filing fees				
<input checked="" type="checkbox"/>	The Commissioner is hereby authorized to charge filing fees or credit any overpayment to Deposit Account Number:				
<input type="checkbox"/>	Payment by credit card. Form PTO-2038 is attached.				
The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government.					
<input checked="" type="checkbox"/>	No.				
<input type="checkbox"/>	Yes, the name of the U.S. Government agency and the Government contract number are: _____				

Respectfully submitted,

SIGNATURE

TYPED or PRINTED NAME

TELEPHONE

(212) 949-9022

Date

March 30, 2004

REGISTRATION NO.

(if appropriate)

Docket Number:

24,156

206,485

**USE ONLY FOR FILING A PROVISIONAL APPLICATION FOR PATENT**

This collection of information is required by 37 CFR 1.51. The information is used by the public to file (and by the PTO to process) a provisional application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 8 hours to complete, including gathering, preparing, and submitting the complete provisional application to the PTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, D.C., 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Box Provisional Application, Assistant Commissioner for Patents, Washington, D.C., 20231.

# PROVISIONAL APPLICATION COVER SHEET

## Additional Page

PTO/SB/16 (8-00)

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Docket Number	206,485	Type a plus sign (+) inside this box →	+
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## **ELECTRONIC PADLOCK**

### **1. General**

The Hi-G-Lock Platform (HGL) is a combination of the Mul-T-Lock physical protection locking devices with Hi-G-Tek's microelectronic and wireless monitoring technology.

The combined product will allow recording of all open / close events of a security lock and the transfer of the recorded data from the lock to the key and from the key to the back office.

The new products will provide in various applications full indication (including time stamp) of the matching and actual attachment of a lock holder to an object, the insertion of the lock into the lock holder and the activation of the lock with a specific key.

The solution will include software package (download utility) with the basic, simple to use, office data management capabilities.

### **2. The HI-G-Lock Platform Major Components:**

**2.1 Active Electronic Key –** The Active Electronic Key (E-Key) is a battery operated device (replaceable battery) which includes the regular physical Mul-T-Lock key with electronic module and magnetic and RFID sensing capabilities.

The E-Key includes data storage and a transmit / receive capabilities to allow sensing of the magnet and passive RFID transponders on the lock and the lock holder side, see Fig.1.

Once the E-Key is inserted into the lock it records the lock's ID & status (whether the lock is closed with the locking bar or not) and if locked it will initiate automatically an interrogation signal for identification of the Lock's holder ID numbers.

The E-Key will include a push button to allow manual recording of the lock status with or without the locking bar.

The E-Key will include short range downloading capabilities to allow the transfer of all recorded data from the E-Key to HHT or LFT office terminal.

Future versions can include the high frequency long range communication capabilities.

#### **TBD CHARACTERISTICS:**

- Environmental conditions
- Physical dimensions of the E-Key
- Battery life time
- Remote wireless characteristics
- Target price / quantities

**2.2 E-Lock –** The E-Lock will be a passive device, compatible with the existing Mul-T-Lock product.

The new product will include a passive electronic module that can sense the magnetic and the passive RFID sensors of the lock holder, the E-Key and the Locking Bar.

Once the E-Key is inserted into the Lock and the power up / interrogation signal is received, the Lock's electronic module will activate the passive RFID sensor of the Lock Holder and read its ID.

The Lock will include a magnet sensing for the open / close status of the E-Key and of the Locking Bar. See Fig.1.

**DRAFT**

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**TBD CHARACTERISTICS:**

- Environmental conditions
- Physical dimensions of the Lock with special cavity and windows for RFID and magnetic communication
- Target price / quantities

**2.3 Lock Holder** – The Lock will be a passive device, compatible with the existing Mul-T-Lock product. The new product will include a passive RFID transponder and a magnet in a special to be developed cavities. Once the Lock is inserted into the Lock Holder and the Locking Bar is closed (or in case of manual activation), the interrogating signal initiated by the E-Key through the Lock module will activate the transponder. The Lock Holder's ID will be modulated back to the E-Key for recording.

**TBD CHARACTERISTICS:**

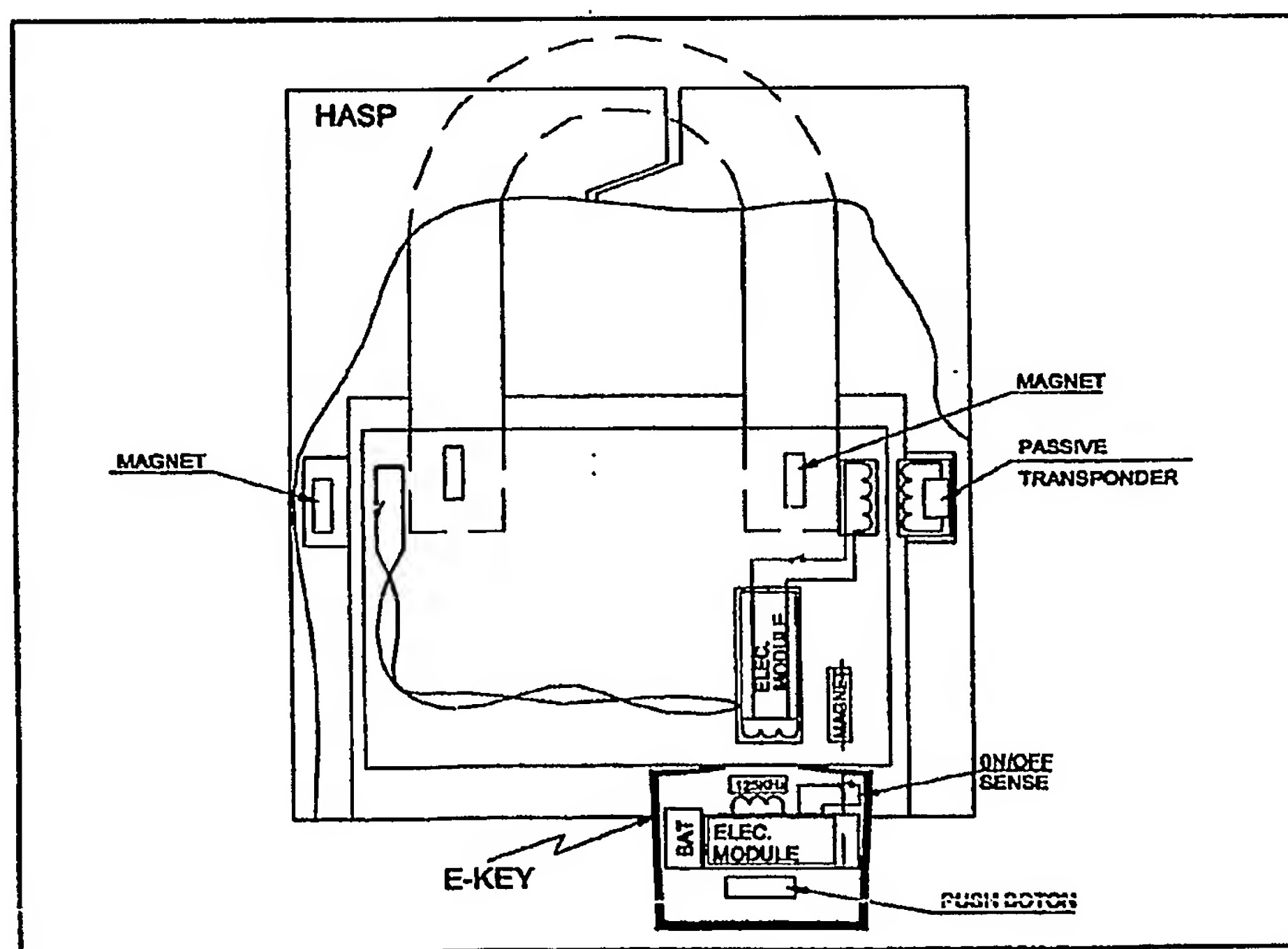
- Environmental conditions
- Physical dimensions of the Lock Holder with special cavities.
- Target price / quantities

**2.4 Download Utility** – The Download Utility software package will include a Low Frequency Terminal (LFT) for the purpose of registration and office data management on PC. All recorded data from the E-Key will be transferred to the PC using the LFT. Also read / write data capabilities from the office to the specific E-Key will be included. This in connection with special criteria and conditions for each specific E-Key holder.

**TBD CHARACTERISTICS:**

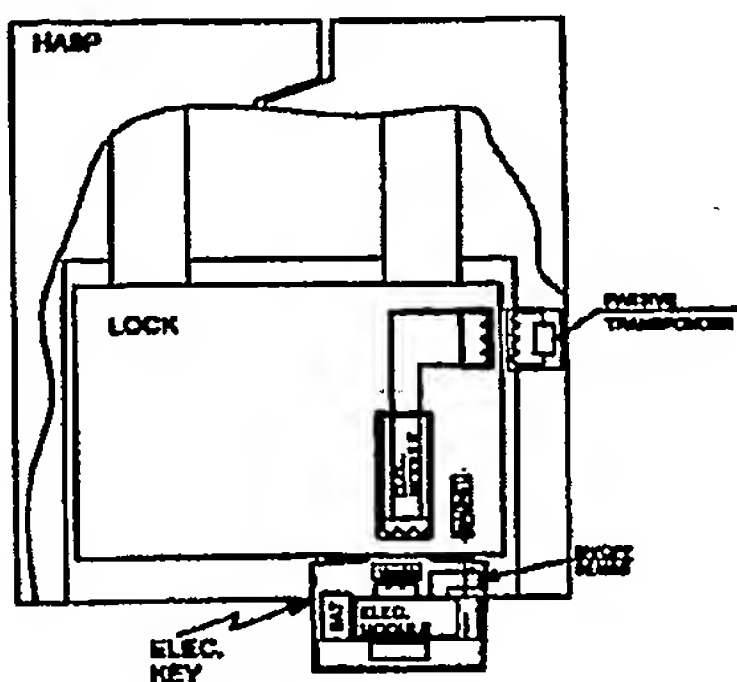
- New features for office use and specific customer requirements
- Target price / quantities
- New system capabilities in connection with long range monitoring

**Fig.1**



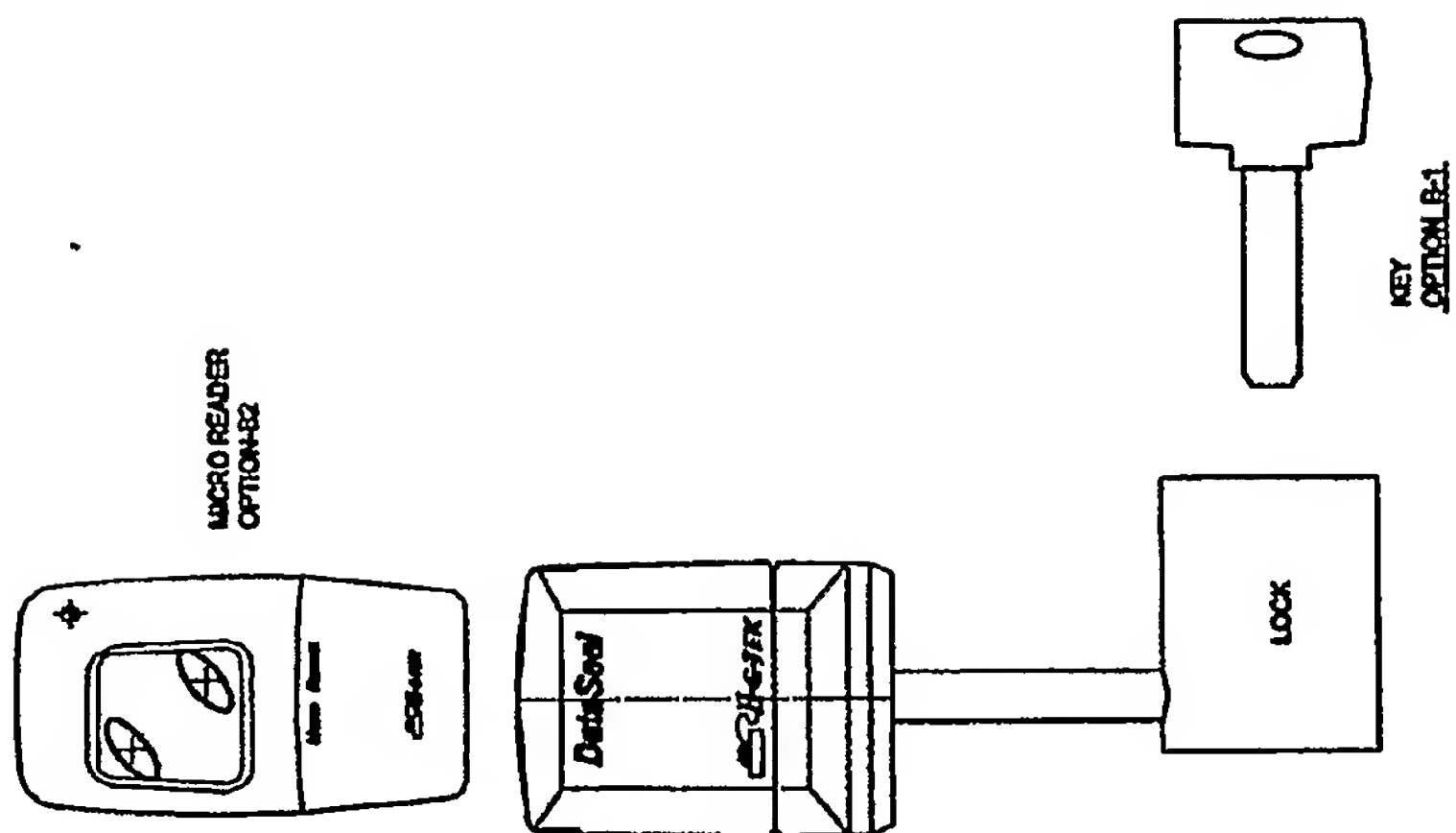
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**Hi-G-Tek Proprietary  
Information Document**

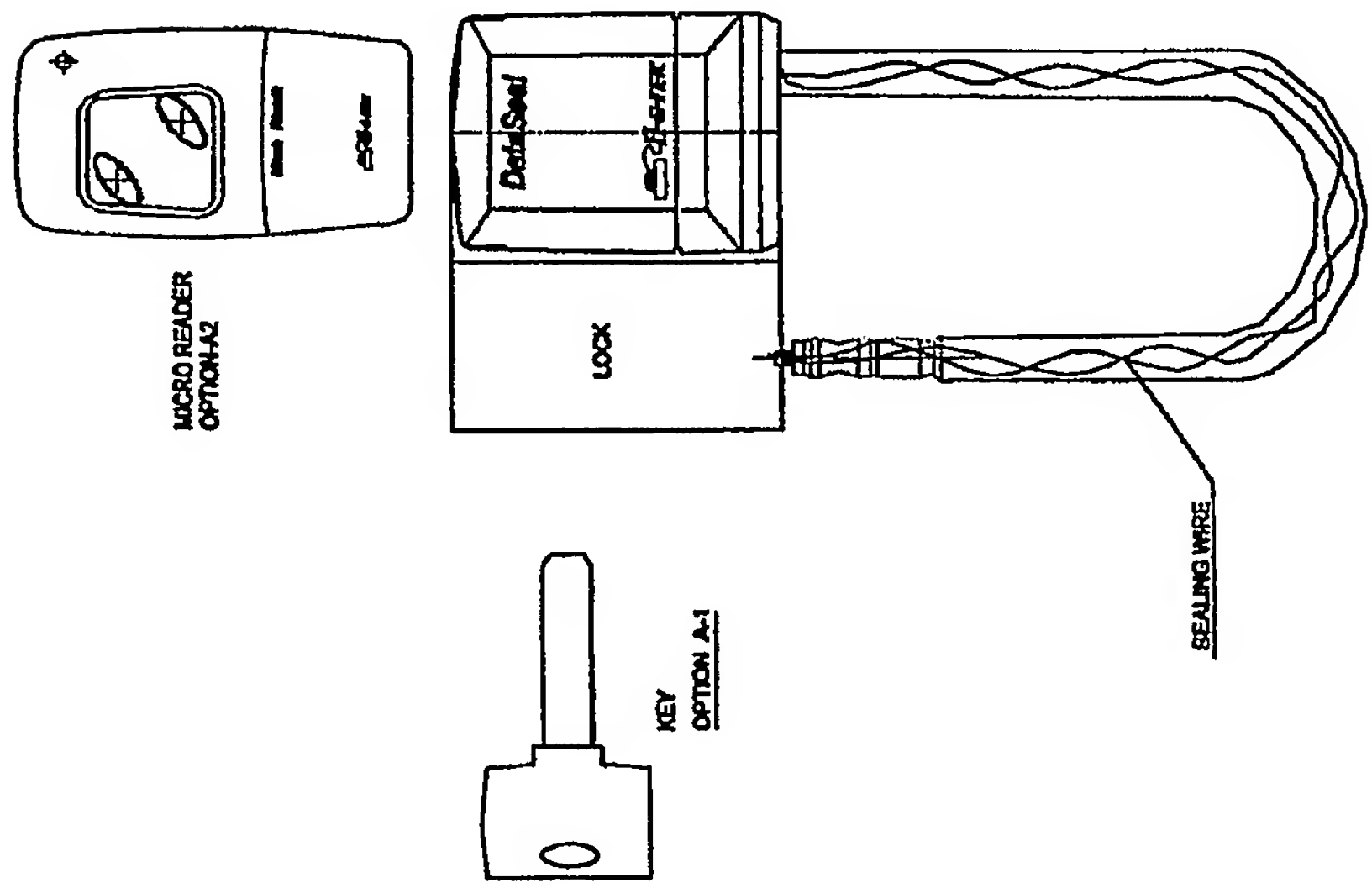


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OPTION B



OPTION A

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Asset Tracking Technology

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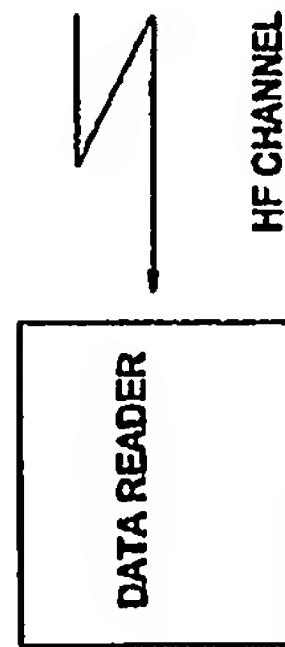
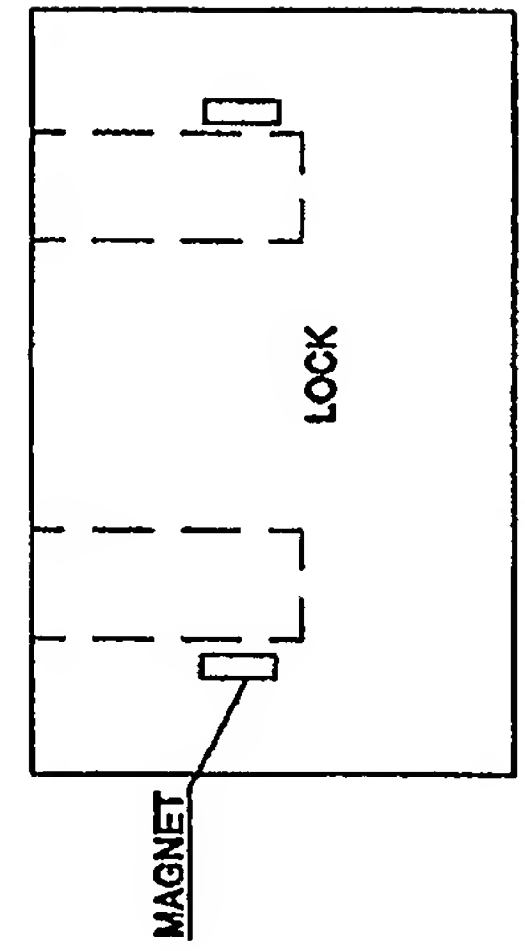
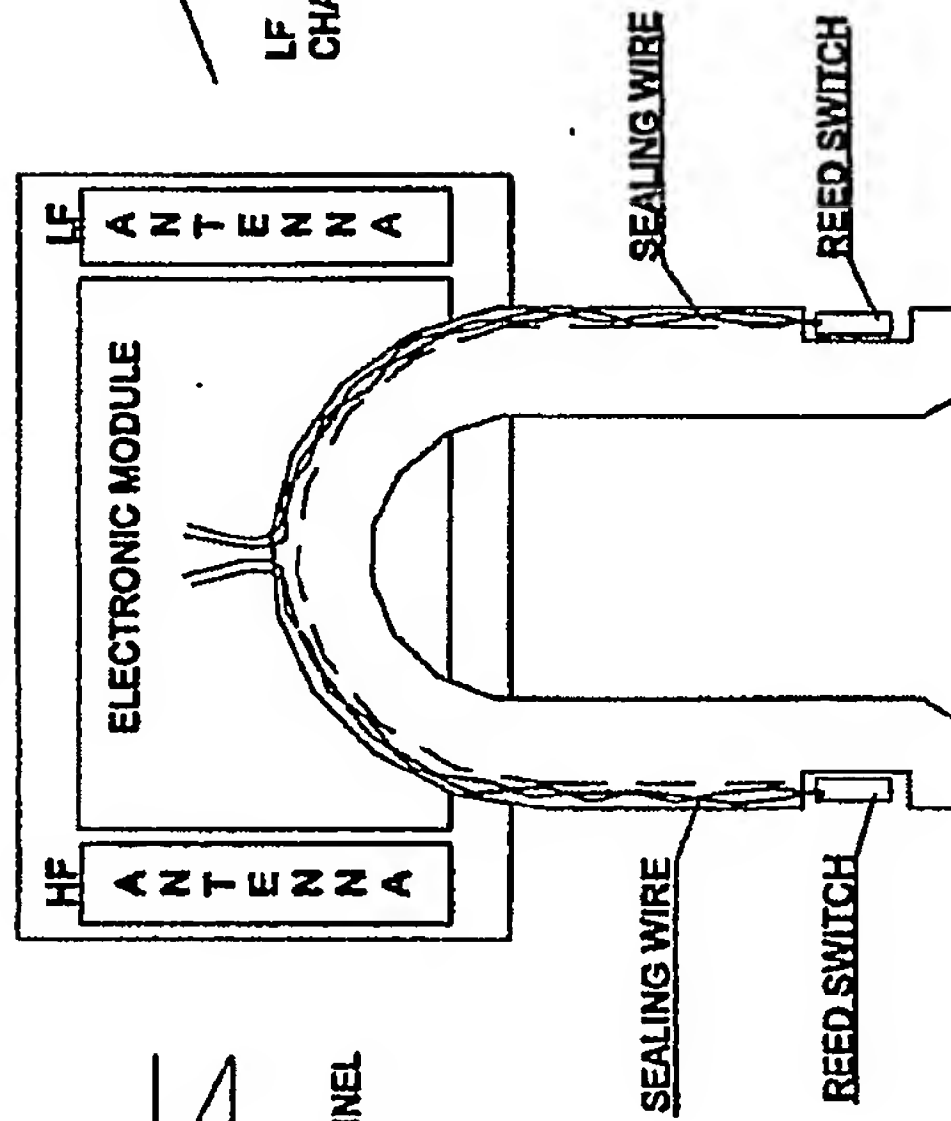
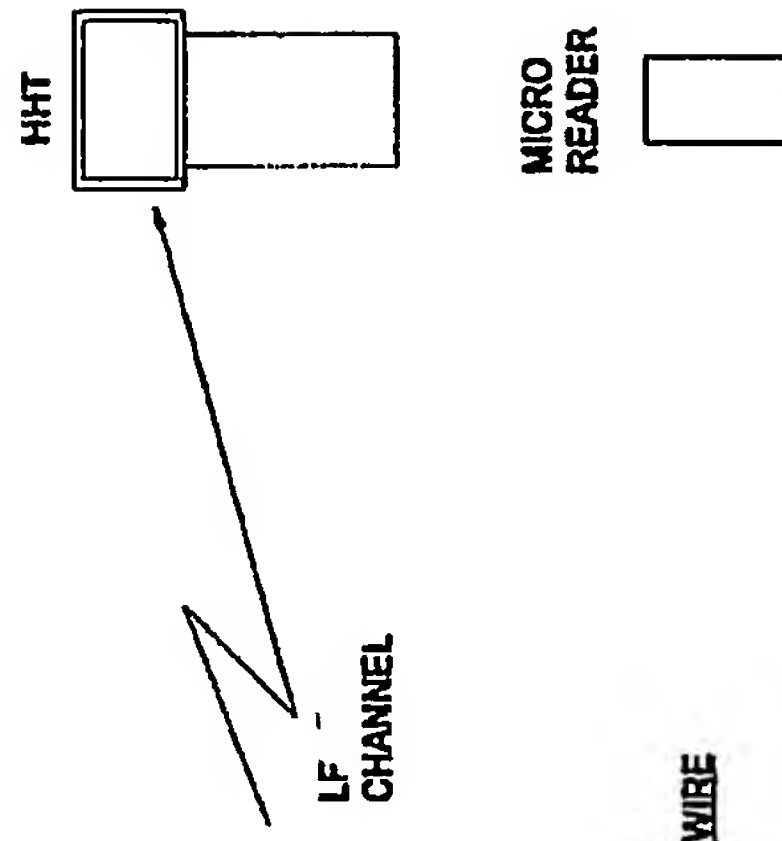
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## Electronic PadLock



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